

# Adjectival modification in Truku Seediq

Claire Saillard

Université de Paris & UMR 7110 CNRS

This paper investigates the position of adjectives in noun phrases in Truku Seediq, proposing that the two documented positions correspond to different semantics as well as a difference in syntax. While post-nominal adjectives, corresponding to basic word-order in Truku Seediq, may be either restrictive or descriptive, pre-nominal adjectives, seen as an innovation, are semantically restrictive. This paper also argues for a difference in syntactic structure for both kinds of adjectives, restrictive adjectives heading their own projection while descriptive adjectives are bare adjectives standing in a closer relationship to the modified noun. This paper further identifies a syntactic constraint for pre-nominal adjectival placement that applies regardless of restrictivity of the modifier, namely the presence of a possessive clitic to the right of the modified noun. Data collection is achieved through both a traditional elicitation method and an experimental task-based method. Data are further digitalized in order to ensure systematic searchability. The data thus collected are apt to support semantic analysis as well as an investigation of age-group-related variation. It is claimed that language contact with Mandarin Chinese may be one of the triggering factors for the development of a pre-nominal position for modifying adjectives in Truku Seediq.

**Keywords:** Truku Seediq, adjectives, restrictive modification, syntactic position, language contact

## 1. Introduction

In studies on linguistic typology concerned with the relative order of nouns and modifying adjectives (Greenberg 1963; Dixon 1977), it is usually considered that most languages have a dominant order. However, this does not prevent the relative position of nouns and adjectives from fluctuating, and in some languages, both N-Adj and Adj-N orders are attested for (some) adjectives. Truku Seediq, a Formosan Austronesian language spoken on the East Coast of Taiwan, exhibits such



- a. On the semantic and discourse level, we claim that the position of the adjective in the NP/DP has no direct bearing on (in)definiteness of the phrase. Rather, it is our claim that pre-nominal adjectives have a restrictive modification function (Alexiadou 2001; Martin 2014), as apparent from discourse stretches such as the following:

(3) [17/1–19; A1]

Angal ka kingal pratu  
 take PRED one bowl  
 pratu ga  
 bowl DEM.D  
 m-banah pratu  
 AF-red bowl

‘Take one bowl. That bowl. The red bowl (as opposed to the black bowl).’

As for post-nominal adjectives, we claim that they may be either descriptive or restrictive. In this paper, we substantiate this finding by using a data set containing dialogic and naturalistic language material. Such data are suitable for highlighting information structure, and thus the restrictive or descriptive semantics of adjectives in a contextually situated occurrence. We think this generalization would have been obscured by more classical elicitation procedures.

- b. On the syntactic level, we claim that the post-nominal position of adjectives in Truku Seediq, similar to their position in other varieties of Seediq, is the unmarked or canonical one, while the pre-nominal position of adjectives is a marked innovation of Truku Seediq. We shall show that there is at least one syntactic constraint forcing an adjective to be in pre-nominal position. We claim that the remaining motivations for pre-posing an adjective are semantic in nature (see a. above).

We shall also reflect on the precise position of the modifying adjective in the DP depending on its internal order, as it was shown in other languages that differences in linear position corresponded to differences in structural position (for Mandarin Chinese, see Paul 2005; for French, see Bouchard 1998) either inside or outside the NP.

The last part of this paper is devoted to a discussion of language contact and language change. The presence of two positions available for adjectives in Truku Seediq is argued to be an innovation of this dialect. Such an innovation could have been jointly triggered by intrinsic changes in the language and by extrinsic influence of Mandarin Chinese.

## 1.1 Data collection method

Collected in Tongmen Village 銅門村 (Hualien District 花蓮縣, Taiwan) in the summer of 2014 using a task design, our data consist of 39 dyadic interactions for a total of 10,469 words, involving a total of 24 speakers of both Truku Seediq and Mandarin Chinese. Speakers have been given codes according to their age, assuming that the eldest (65–84 years of age at the time of recording; code beginning with the letter A) are the most proficient in Truku, and the youngest (15–35 years of age at the time of recording; code beginning with the letter C) the most proficient in Mandarin Chinese. Speakers with a code beginning with the letter B, aged 36–64 at the time of recording, are fairly proficient in both languages, with diverse patterns of language dominance.<sup>4</sup> Interactions took place between speakers of the same age group as well as across age groups. All interactions were videotaped and audio recorded, then thoroughly transcribed and annotated<sup>5</sup> with the digital tools developed for the CLAPOTY project,<sup>6</sup> so that they are fully searchable.

The data we collected consist of naturalistic speech stimulated by a task. Since the project was primarily aimed at collecting data documenting language contact, speakers were directed to speak in whichever language they found natural. This results in code-switching and code-mixing in the data, as will be apparent.<sup>7</sup> Consultants were grouped by pairs, seated at each end of a table and separated by a screen. Each of the participants had the same set of objects placed on their own half of the table. One of them was designed as “leader” of the task and was asked to designate objects on the table before him/her, and direct his/her partner to place the objects in the same manner as he/she did.

Since there was only one of each kind of object visible for each individual speaker, and the speakers knew that their partner had the exact same array of objects in front of them, we could expect a rather high tendency to use DPs with a definite reference.

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4. Each participant answered a language biography questionnaire aiming to ascertain their linguistic competence and dominance patterns.

5. We owe a debt of gratitude to Lowking Nowbucyang (許韋晟), National Tsing Hua University, for his invaluable help with finding consultants, collecting and transcribing data. We also thank Lu Yunfang (陸雲芳), Université Paris Diderot, for her help with annotation of the Mandarin Chinese part of the data.

6. This data set was constructed as part of the CLAPOTY Project (Towards a multi-level, typological and computer-assisted analysis of contact-induced language change; Agence Nationale pour la Recherche ANR-09-JCJC-0121-01) and fieldwork was co-funded by the LabEx Empirical Foundations of Linguistics (ANR-10-LABX-0083).

7. As is the convention in code-switching literature, when transcribing mixed language data, we use a different typeface for each language. In all relevant examples thereafter, Truku Seediq is in regular print while Mandarin Chinese is in boldface print.

Some of the objects came in different sizes or colors (red and white toy cars; red and black bowls; big and small owl figurines, also different in color), in order to force the speakers to use adjectives to differentiate them. A significant part of our consultants also used adjectives for unique objects (white string, big/white fish, yellow baby duck, red flower, round key...); in those cases, adjectives were merely descriptive modifiers, without any contrastive function.

In this paper, excerpts of the data are identified with the number of the corpus/sub-corpus followed by the number associated to the speech turn and finally, the letter and number corresponding to the speaker.

## 1.2 The puzzle: Positional variation of modifying adjectives

As shown by Table 1 below,<sup>8</sup> our data exhibit a certain amount of variation as to the position of modifying adjectives relative to the modified nouns.<sup>9</sup>

**Table 1.** N/Adj order in DPs where both noun and adjective are in Truku Seediq

Speaker	Adj-N	N-Adj
A1	1	2
A3	1	16
A4	–	7
A5	1	6
A6	7	17
A7	4	13
A8	1	17
A9	1	4
A10	–	9
B1	2	10
B2	17	4
B3	–	1
B4	5	4
B5	1	6

*(continued)*

8. The only speakers mentioned in this table are those using at least once in the corpus an adjective in Truku Seediq modifying a noun in Truku Seediq. C speakers never used adjectives in Truku Seediq, as shall be explained in § 5.

9. Of course, some adjectives may be found pre-nominally because they are predicates of the sentence, the following noun being their argument. This is exemplified below. Such cases are not discussed in this paper, because we deal only with modifying adjectives.

- (iv) [A3 elicitation]  
 paru bluhing=su, lala bi n-apa=su  
 big sieve=2SG.POSS many really PFV-carry=2SG.POSS  
 ‘Your sieves are big, your burdens are many indeed.’

Table 1. (continued)

Speaker	Adj-N	N-Adj
B8	12	11
B9	–	6
B11	–	3
B12	3	10
B13	1	–
B14	4	4
B15	–	3
B16	–	1
<b>Total</b>	<b>61</b>	<b>154</b>

A look at the figures in Table 1 shows roughly  $\frac{3}{4}$  of post-nominal adjectives and  $\frac{1}{4}$  of pre-nominal adjectives. The pre- and post-N position of adjectives seems to be independent of adjectives *per se*: a given adjective (in both prefixed and bare forms when both co-exist) may occupy both positions even within a single speaker's production. This is shown in Table 2 below, where the most represented adjectives are color and size adjectives, both being found either pre- or post-nominally. Other modifying adjectives occur only once in the corpus, thus precluding any attempt at generalization.

Table 2. N/Adj order in all DPs by semantic class of Truku Seediq adjectives

Class of adjective		Adj-N	N-Adj
Size	<i>bilaq</i> 'small'	12	28
	<i>paru</i> 'big'	10	32
Color	<i>(m-)banah</i> 'red'	22	62
	<i>(m-)qalux</i> 'black'	7	27
	<i>bhgay</i> 'white'	15	28
	<i>m-pajiq</i> 'green'	–	1
	<i>m-purah</i> 'yellow'	–	1
Form	<i>qurug</i> 'round'	1	–
<b>Total</b>		<b>67</b>	<b>179</b>

As is the case for all adjectives seen as a whole (as in Table 1), the six adjectives that occur more than once are more likely to occur in post-nominal position than in pre-nominal position. Moreover, there seems to be no difference between color and size adjectives.<sup>10</sup>

10. Color adjectives form a class of their own, while size adjectives belong to the class of so-called vague scalar adjectives. In the literature on positional variation of adjectives in Romance languages (Alexiadou 2001; Martin 2014, among others), evaluative adjectives have been more discussed than any other category of adjectives. They have been shown to be subject to systematic

Let us note that the 247 DPs containing adjectives (see Table 4 below) stand for only 6.5% of the 3,735 DPs in the whole corpus, which is not necessarily representative of the frequency of adjective use in everyday conversation. But, given the nature of the task, references to the matching bowls, toy cars and owls were very likely to contain adjectives (see methodology *supra*), so that DPs containing adjectives do represent the most part of DPs referring to these objects (for instance, out of the 133 references to *pratu* ‘bowl’, 85 contain an adjective).

Thus, pre-nominal adjectives are marked at least in descriptive terms, by their relative scarceness as opposed to post-nominal adjectives. Is this distribution driven by syntactic constraints? Is it due to the semantics of adjectives? In the following, we shall examine both questions in turn.

## 2. The syntax of modifying adjectives in Truku Seediq

In order to tease out any existing syntactic constraint weighing on the position of modifying adjectives, beside conversational data, we further elicited some complex DPs from three of our older consultants, A1, A3, and A7.<sup>11</sup> In the following discussion, examples are either elicited sentences or naturally occurring ones.

We found that, while both A1 and A7 accepted both Adj-N and N-Adj orders quite freely, the eldest of the three, A3, accepted only the N-Adj order in elicitation, and never produced the Adj-N order in spontaneous data, with but one exception, exemplified below:

- (4) [17/2–30; A3]  
 Ni bhgay haya bilaq ga  
 and white car small DEM.D  
 ‘And that small white car.’

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semantically-driven positional variation. Our experimental design did not call for evaluative adjectives (such as ‘horrible’, ‘disgusting’, ‘just’, ‘clever’, ‘honest’ etc.), which remain to be tested as to their preferred position with regard to the modified noun.

11. A3 is a male speaker born in 1936 who never went to school. A1 is a female speaker born in 1944, and was an elementary school teacher before she retired. A7 is a male speaker born in 1947 and a sibling of A1. He too was an elementary school teacher, then managing director of the same school. Thus, while A3 claims to speak mainly Truku Seediq in his everyday life, he is able to speak a highly pidginized variety of Taiwan Mandarin Chinese. In contrast, both A1 and A7 are very proficient in Taiwan Mandarin Chinese, which was the dominant language in their work environment, and for A1, in her family environment as well since her wedding. All three have lived in Tongmen Village and/or neighboring Wenlan Village 文蘭村 all their lives, had monolingual Truku ascendants, and are considered proficient speakers of Truku Seediq by the community.

In this sentence produced by A3, there are two adjectives modifying a single noun, these adjectives standing on either side of the modified noun. Thus, on syntactic grounds, we could surmise that the pre-nominal position of the adjective *bhgay* ‘white’ is motivated by the fact that the post-N position is occupied by another adjectival modifier. But this does not seem to be an obligatory condition, as shown by the following examples produced by the same consultant during elicitation.

(5) [A3 elicitation]

Gasil m-banah qthur gaga o nisu  
 string AF-red thick DEM.D TOP 2SG.POSS  
 ‘That thick red rope is yours.’

In the preceding example, the modified noun is followed by two adjectives, while in the following example, the modified noun is followed by a modifying adjective and a modifying noun.

(6) [A3 elicitation]

Ubal bbaraw puurung  
 feather long owl  
 ‘Long owl’s feathers.’

More generally, it is not rare to find two adjacent adjectives in other speakers’ productions in interactional data as well, albeit always in post-nominal position:

(7) [18/2–29; A4]

puurung ey puurung m-banah bilaq  
 owl FILL owl AF-red small  
 ‘The owl uh the small red owl’

(8) [19/8–21; A7]

puurung puurung paru m-pajiq ga  
 owl owl big AF-vegetable DEM.D  
 ‘The owl, that big green owl.’

Thus, in Example (4) above, we think that, rather than a syntactic constraint, a semantic constraint is at work: as we shall elaborate shortly, the pre-nominal adjective *bhgay* ‘white’ is used restrictively, while the post-nominal adjective *bilaq* ‘small’ is used descriptively, ‘small car’ being a sort of (toy) car.

However, there seems to be a truly syntactic constraint found in spontaneous data and linked to the presence of a possessive clitic pronoun to the right of the modified noun. In these utterances, adjectives have to be pre-nominal, and we never find any modifying adjective after a possessive clitic pronoun:

- (9) [19/8–15; A7]  
 p-sa-i           brah   m-qalux pratu=su  
 CAUS-go-IMP before AF-black bowl=2SG.POSS  
 ‘Put (it) before your black bowl.’
- (10) [19/6–75; B8]  
 p-sa-i           qita:       m-banah pratu=su       truma  
 CAUS-go-IMP so\_to\_say AF-red   bowl=2SG.POSS under  
 ‘Put (it), let’s say... under your red bowl.’

Note that the same constraint may apply in reverse, as shown in the following example where a possessive pronoun is not cliticized to the possessed noun when the corresponding position is filled in by a post-nominal adjective (this however is the only example of its kind in our data):

- (11) [17/5–31; A3]  
 Haya bhgay ga    su  
 car   white DEM.D 2SG.POSS  
 ‘That white car of yours’

Note that unexpectedly, the possessive pronoun follows the demonstrative, usually a phrase-final element.

Thus, it seems that the only clear syntactic constraint that would force an adjective to be placed pre-nominally, independently of its semantics, would be the presence of a possessive clitic to the right of the noun. Other post-nominal modifying elements (be they adjectives or nouns) do not trigger such a movement if semantics do not require it. This will be our next topic.

### 3. The semantics of the position of adjectives in Truku Seediq

#### 3.1 The pre-/post-nominal position doesn’t correspond to a distinction in definiteness (*contra* Pecoraro)

Truku Seediq seems to be lacking definiteness as a morphological category, while definiteness is loosely associated to the syntactic position of the DP (the same can be said of Mandarin Chinese, see Chen 2004: 1132–1133). However, regardless of syntactic position, it has been argued that some elements are inherently definite in most languages, such as demonstratives (Chen 2004: 1143).<sup>12</sup> As for possessives,

12. Although demonstratives are usually definite cross-linguistically, this may suffer exceptions, as witnessed by the literature on indefinite ‘this’ in English; see for instance Gundel et al. (1993).

Lyons (1999) has shown that although they are not inherently definite, they are unmarkedly associated with definiteness in many languages (as in English ‘my friend’ vs. ‘a friend of mine’, more marked as a construction).

In the following, we try to determine whether a given type of DP has definite or indefinite reference, and then look at the position of adjectives to see whether it is related to the definiteness value of the DP.

In order to determine the definiteness value of a DP, we may ask the following questions:

- Does the DP contain inherently definite words, such as demonstratives, or words that tend to associate with a definite DP, such as possessives?
- Does it contain inherently indefinite words? There are almost no indefinites such as ‘some’, ‘several’, or ‘how many/much’ in our data, as could be expected from the experimental context. Our data contain numerals, but contrary to Chang (2000: 106), we do not think that numerals should be systematically regarded as indefinite in nature (see § 3.1.2),<sup>13</sup>
- Is the DP situated in a syntactic slot that favors either definite readings (such as the grammatical subject position)<sup>14</sup> or indefinite readings (such as is usually argued of the internal argument position in existential constructions)?

We challenge these criteria by applying them to a subset of our data, namely the DPs containing an adjective modifying nouns referring to objects that come in contrasting pairs in the experimental setting, namely *pratu* ‘bowl’, *haya* ‘car’, and *puurung* ‘owl’.

In the following, we show that the Adj-N vs. N-Adj order cannot correspond to an indefinite vs. definite semantic contrast as sketched in Pecoraro (1979: 50–51). In order to do so, we examine DPs containing elements that are usually considered as compatible with definite readings (§ 3.1.1), with indefinite readings (§ 3.1.2), and last (§ 3.1.3), sentence patterns where some argumental positions are usually associated to a definite or indefinite reading of the corresponding DP. In each case, we ask whether a given definiteness value is associated with a given order between adjective and noun.

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13. Chen (2004: 1164) similarly shows that cardinality expressions in Mandarin Chinese are neutral as to the interpretation of identifiability.

14. We thank an anonymous reviewer who pointed out that it would have been interesting to compare the position of adjectives relative to nouns occupying the subject and object positions respectively, since in Truku Seediq as in other Formosan/Philippine type languages, the noun that is “in focus”, thus in subject position, tends to be interpreted as definite. Unfortunately, our experimental data are unfit for such an investigation, but this question could be the focus of further research.

### 3.1.1 *Definiteness and demonstratives/possessives*

Let us first look at the presence of demonstratives or possessives with adjectivally modified nouns.

**Table 3.** DPs containing an adjective with or without possessives and demonstratives

		Without possessive or demonstrative	Followed by a demonstrative	Followed by a possessive
N-Adj order	<i>pratu</i> 'bowl'	56	7	0
	<i>pu(u)rung</i> 'owl'	26	4	0
	<i>haya</i> 'car'	28	5	1
	<b>Total</b>	<b>109</b>	<b>16</b>	<b>1</b>
Adj-N order	<i>pratu</i> 'bowl'	12	4	2
	<i>puurung</i> 'owl'	15	1	1
	<i>haya</i> 'car'	10	0	0
	<b>Total</b>	<b>37</b>	<b>5</b>	<b>3</b>

As shown by Table 3, the presence of elements usually considered as definite holds divergent results.

Both Adj-N and N-Adj orders may be found in co-occurrence with a demonstrative, which shows that both orders are compatible with a definite reading.

For possessives however, possessive clitics only occur with the Adj-N order, and, in one instance, possessive independent pronouns with the N-Adj order, which we explain by the syntactic hypothesis described in § 2. However, this does not go well with the hypothesis that the definite reference of such DPs is linked to the position of the adjective.

If we wanted to maintain, following Pecoraro (1979), that the Adj-N configuration gives rise to an indefinite reading, we would have to interpret Example (10) above as referring to 'a red bowl of yours' (indefinite). However, such an interpretation is pragmatically implausible, since each speaker has only one red bowl. Our syntactic hypothesis as exposed in § 2 is that the presence of a possessive clitic to the right of the noun forces the adjective to be pre-posed regardless of the referring properties of the DP.

This however does not totally rule out the question of a definiteness connection that would be the reverse of Pecoraro's claim, with pre-nominal adjectives triggering a definite reading for the DP. But we can show it not to be the case, since both Adj-N and N-Adj orders are found in clearly definite DPs, as shown by the presence of demonstratives, or their syntactic position. Before moving on to syntactic positions in existential and possessive sentences, we first look at the semantic interpretation of numerals.

### 3.1.2 (In)definiteness and numerals

As mentioned earlier, we doubt that cardinal numerals in Truku Seediq systematically yield indefinite meanings (*contra* Chang 2000: 106 regarding Paran Seediq). The two following examples indicate that DPs containing numerals may be interpreted as definite given the right context. First of all, cardinal numerals are compatible with demonstratives, as in the following:

- (12) [20/2–11; A8]  
 M-banah ka kingal puurung ga, m-pajiq ka kingal  
 AF-red PRED one owl DEM.D AF-vegetable PRED one  
 ‘That one owl is red, (the other) one is green.’

In (12) above, both DPs introduced by *kingal* ‘one’ have a definite reference. As for the position of adjectives with cardinally quantified DPs, there were only two adjectives found in co-occurrence with a cardinal numeral. One was post-nominal (see (13)). The interpretation of this noun phrase has to be definite, since both consultants knew that the addressee had but one small owl in their array.

- (13) [17/2–24; A3]  
 Hmm: kingal puurung bilaq truma hini  
 uh one owl small under here  
 ‘Uh, (the) one small owl (goes) under here.’

The other example, transcribed in (14), exhibits a pre-nominal adjective. The complex DP structure,<sup>15</sup> in which the adjective precedes the numeral, is marginally attested in Chang (2000: 66, Example (15b)). This DP may be interpreted as indefinite in the context of an equative sentence introduced with a demonstrative in topic position.<sup>16</sup>

- (14) [19/6–71; B8]  
 Ga do bilaq kingal bi qita puurung da ga  
 DEM.D TOP small one really so\_to\_say owl AS.PFV DEM.D  
 ‘That one, (it is) one really small, so to say, owl.’

15. See (31) *infra* for a comment on the structure of this DP and the AdjP it contains.

16. This structure should not be mistaken for one of two locative structures identified by Tsukida (1999: 601–602). In the locative structure Tsukida describes, the distal or proximal demonstrative acts as the predicate of the sentence. However, Tsukida (1999: 607–608) states that in such locative sentences, although the THEME NP can be omitted, the NP expressing LOCATION cannot. In our Example (14) however, only the THEME is expressed. Tsukida goes on writing that “A sentence where the LOCATION is omitted cannot be interpreted as locative. It can be uttered, however, if one interprets *ga* or *nii* to mean “that one” or “this one”” (Tsukida 1999: 607–608). The other difference with Tsukida’s examples is that the first demonstrative in our example is a topic, not a predicate.

As a consequence, we cannot use the presence of numerals as a clue to the (in)definite interpretation of noun phrases, since both readings occur, depending on other factors at play outside the DP. The only truly indefinite elements in our data are pronouns such as *niya* ‘something’, but they do not occur with adjectives.

Ordinal numerals on the other hand are usually definite cross-linguistically. A relevant example is:

- (15) [22/1–43; B14]  
 Ci-kingal bhgay ey tduruy do p-sa-i iril ki da  
 ORD-one white FILL car TOP CAUS-go-IMP left DEM AS.PFV  
 ‘The first, white car, put (it) on the left here.’

In the preceding example, the presence of the pre-nominal adjective seems to stem from the need to identify which of the two cars is “the first”. Thus, the pre-nominal position of the adjective is a means of identifiability, and as such, compatible with a definite reading, but not necessarily a mark of definiteness, since it could be argued that the ordinal numeral plays this role.

### 3.1.3 *Existential and possessive sentences*

Tsukida (1999) characterizes sentences introduced by the predicate *niqan*, etymologically the verb *eniq* ‘to live/to stay (somewhere)’ with the goal voice suffix *-an*,<sup>17</sup> as possessive or existential sentences (the latter including locative sentences), depending on the thematic role of the arguments. Although there is but one structure for these sentences, the two interpretations depend on the thematic role played by the second argument, either a LOCATION in existential/locative sentences or a POSSESSOR in possessive sentences. As to the first argument, it is always a THEME (Tsukida 1999: 602). What will be of interest to us is whether this THEME DP is systematically interpreted as definite or indefinite, possibly depending on the possessive or locative interpretation of the other argument (i.e. the semantic type of the sentence), or whether it may have any of the two readings in a given sentence type. Once this is established, we shall try to see whether the (in)definite reading of the DP bears any relation to the order of adjectives and nouns in the THEME DPs.

#### *Existential sentences*

In languages such as French, English and Mandarin Chinese (for the latter, see Chen 2004: 1168–1175; 2009), existential sentences favor the introduction of indefinite DPs as THEMES in object positions, the subject position being filled with expletive

17. Glossed here as LF, Locative Focus. Tsukida (1999: 631) considers *niqan* to have been “grammaticalized as the predicate of existential/possessive sentences to some extent”.

or null subjects (see French *il y a*, English *there is* with expletive pronoun subjects, Mandarin Chinese  $\emptyset$  有 *you* 'have' with a null subject).

If we look at THEME arguments of existential sentences in Paran Seediq, Chang argues that they cannot be "definite".

Existential sentences are often used to express the existence of a given person, fact or thing, and this person, fact or thing is known only by the speaker, and usually not by the hearer. Thus, "definite" nouns expressing things known by both the speaker and the hearer cannot occur in existential sentences, otherwise their meaning would be inappropriate. (Chang 2000: 106, our translation)<sup>18</sup>

The examples in Paran Seediq given by Chang are comparable in structure to the Truku Seediq sentences in Tsukida (1999). However, in Truku Seediq, Tsukida (1999: 619) states that "Most of the THEMES in existential clauses are indefinite, but one example of existential clause (with the pattern given in (16a))<sup>19</sup> that involves a definite theme was found in a text." If this description by Tsukida is correct, then we may surmise that indefiniteness is only a preferred feature of THEMES in existential clauses, thus most liable to surface in elicited data. However, in more natural data such as texts, this preference may be overruled by other factors.

Yet, another interpretation is possible. Zeitoun (2000: 244) reports that Freeze considers that existential sentences in Austronesian languages have indefinite THEMES, while sentences with a similar surface structure and a definite THEME must be interpreted as locative sentences.<sup>20</sup> The deep syntactic difference between the two is that, in locative sentences, the THEME DP is the subject, while in existential sentences, the LOCATION DP is the subject.

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18. 存在句通常用來表達某一個人事物的存在，而這一個人事物只有說話者心裡有數，聽話者通常不知道。因此，表達說話者和聽話者都知道的「定指」(definite)名詞不能出現在存在句裡，否則語意會不合。

19. Namely, the pattern is : *niq-an* THEME (LOCATION). Note that in Tsukida's example, the THEME DP is a bare noun, and there is no LOCATION DP. The example reads as follows:

- (vi) [Tsukida 1999: 624, example (48)]  
 niqan likaw da  
 exist mirror now/already  
 'There was the mirror.'

In Tsukida's example, the absence of an overt LOCATION and the discourse context make an existential reading perfectly natural, and preferred over a locative reading.

20. Freeze, Ray. 1991. Existentials in Austronesian. Paper read at the Sixth International Conference on Austronesian Linguistics. Honolulu, May 21–24; Freeze, Ray. 1992. Existentials and other locatives. *Language* 68(3). 553–595; Cited by Zeitoun (2000).

Thus, in order to decide between these two explanations, and find out whether definite DPs are effectively ruled out as THEMES in existential sentences, we may want to check the following points in our data: (a) Are THEME arguments of existential sentences in Truku Seediq always interpreted as indefinites in our corpus? (b) When the THEME DP is definite, is the sentence locative rather than existential? (c) Do these findings support Pecoraro's hypothesis that Adj-N order gives an indefinite interpretation to the phrase and N-Adj order a definite interpretation?

In some existential sentences introduced by the verb 'have' found in our corpus, THEME DPs indeed seem to have an indefinite interpretation, as in (16) below:

- (16) [17/2–52; A1]  
 Aji niq-an kingal wawa ruru?<sup>21</sup>  
 NEG.exist live-LF one baby duck  
 'Isn't there one baby duck?'

The indefinite interpretation implies that the speaker is not certain whether the hearer knows about the baby duck in their array. Thus, the question is a *bona fide* yes-no interro-negative sentence.

However, as was shown above, phrases containing not only a numeral, but also a demonstrative, may have a definite interpretation. We find this even in THEME arguments of existential sentences such as the following:

- (17) [17/1–85; A1]  
 Hay niq-an kingal wawa ruru ga?  
 NEG.INT live-LF one baby duck DEM.D  
 'Isn't there that one baby duck?'

In the preceding utterance, the definite interpretation of the DP implies that both speaker and hearer know that there is one and only one baby duck in each of their own arrays. This is also implied by the rhetorical form of the question, using an interro-negative question word. The existential interpretation (checking that the hearer knows about the existence of the baby duck) seems more natural than the locative one (checking that the baby duck is somewhere on the hearer's array), especially since the speaker cannot see the hearer's array because of the screen standing between speaker and hearer. Thus, although the speaker thinks that there must be a duck in the hearer's array, she doesn't know where the duck is located. Another indication that this sentence might be existential rather than locative is the lack of locative argument, as in Tsukida's example (see Footnote 19).

21. Note that this sentence pattern is different from what is described by Tsukida (1999), for whom the existential negation *aji* is associated to the demonstrative predicates, and the LF form *niq-an* does not appear in negative existential sentences.

To sum up so far, we just showed that in our semi-spontaneous data, THEME arguments of existential sentences could be interpreted either as definite or indefinite.

Let us turn to phrases containing adjectives. We may question the semantic reading of the THEME argument in the following example.

- (18) [22/1–31; B14]  
 Niq-an ey: qurug kaji ki ga  
 live-LF FILL round key DEM DEM.D  
 ‘There is uh that round key.’

In this sentence, the DP *qurug kaji ki ga* ‘this/that round key’ (for ‘keychain’) is the first mention of the ‘key’ in the whole interaction, which renders an indefinite interpretation possible. Moreover, since the adjective precedes the noun, one could, following Pecoraro, expect the reference to be indefinite. But the DP also contains two demonstratives (one distance-neutral and one distal), which render an indefinite interpretation difficult. Moreover, as was the case with the preceding examples, there is no LOCATION DP in the sentence. Apart from this example, our corpus contains many instances of *niqan* forms with THEME DPs ending with a demonstrative. We also find several code-switched existential sentences using the Mandarin Chinese existential verb *you* 有 ‘have’ with null subjects, where the object DP, semantically a THEME, exhibits the N-Adj order as well as a demonstrative:

- (19) [20/4–74; B12]  
 hai you na ge: ruru bilaq ga huangse de  
 again have DEM.D CL duck small DEM.D yellow MOD  
 ‘And there’s that... that little duck, yellow.’

In all these examples, the interpretation of the sentence is most likely existential, since the speaker cannot see where the hearer’s objects are located, because of the screen between them. Given these data, we may confirm Tsukida’s hint that the existential construction in Truku Seediq does not introduce only indefinite DPs as THEME arguments. We may also reject Freeze’s generalization that definite THEMES are the hallmark of locative sentences. In this, we follow Zeitoun (2000: 245), who states that “in most, if not all, Formosan languages, the ‘definiteness effect’ does not play any role in the selection of the theme or the locative phrase as subject in existential vs. locative constructions.” In our data, the definite or indefinite interpretation of the THEME DP depends on other factors, such as the presence of demonstratives or discourse pragmatics. Moreover, the contrast in adjective-noun order in sentences (18) and (19) shows that this relative order is not linked to the definite reading of the DPs. A short discussion of possessive sentences is required at this point.

### *Possessive sentences*

As described *supra*, possessive sentences have the same overall structure as existential sentences, but their subject DP, when expressed, is semantically a POSSESSOR. When it is not expressed lexically, the THEME DP has to be suffixed with a possessive clitic co-referring with the covert subject POSSESSOR. According to Tsukida (1999: 625–626), THEMES in possessive sentences are never definite, and usually non-specific as well. The following example is such an example from our data.

- (20) [17/1–71; A1]  
 Hay niq-an ka<sup>22</sup> beling=na hiya ?  
 NEG.INT live-LF PRED hole=3SG.POSS there  
 ‘Hasn’t it a hole over there?’

Thus, possessive sentences would provide us with a way to ascertain whether the relative order of adjectives and nouns is indicative of (in)definiteness, since THEME DPs have to be indefinite. Unfortunately, there is no instance in our data of a THEME DP in a possessive sentence containing an adjective.

Based on our avowedly scarce data, there is no evidence linking the relative order of adjectives and nouns to the definite or indefinite interpretation of the DP containing them. Thus, in conclusion of the present sub-chapter, we found only a few elements by which a DP in Truku Seediq has to be interpreted as definite: these are demonstrative determiners and possessive clitics on the one hand, and possibly the THEME position in possessive sentences on the other. However, we found no element forcing an indefinite reading of DPs, be it cardinal numerals or the THEME position in existential sentences.

If ordering of adjectives and nouns in the DP is independent from definiteness, careful analysis of the data points to another semantic notion that may account for the syntactic distribution of adjectives relative to nouns. This is explored in the following two sections, where we use the *restrictive vs. descriptive* distinction that applies to modifiers in general.

### 3.2 Proposal (1): Pre-nominal adjectives are restrictive

Through their use in dialogues, we can see that pre-nominal adjectives tend to mark a restriction, which is to say, to render the reference of the modified noun more easily identifiable to the addressee. The notion of restriction in modification

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22. Note that in this example, the particle *ka* precedes the THEME DP, whereas in possessive sentences such as those described by Tsukida (1999), it usually precedes the POSSESSOR subject, and is considered a nominative case marker (see Footnote 3 *supra*). This sentence from our data is a further argument to doubt that *ka* is such a marker.

has been formalized by Martin (2014) regarding evaluative adjectives.<sup>23</sup> However, the kind of modifying adjectives we find in our data set are mostly color or shape adjectives or size adjectives. Although the semantic nuances found in pre- versus post-nominal adjectives in Truku Seediq may not be as clear as the celebrated French examples (*un grand homme* vs. *un homme grand*; see § 4 for a syntactic account of the semantic difference), close scrutiny of our data allows us to recognize restrictive adjectives as modifiers that insist on one quality of the modified noun in order for the addressee to differentiate its intended referent from another similar referent having a contrasting quality, as for instance a red bowl as opposed to a black bowl. As explained in the methodology section (§ 1.1), in the task assigned to our consultants, there were several contrasting objects: red vs. black bowls, red vs. white toy cars, big/green vs. small/red owl figurines (in most instances, the size of the owl figurine was judged more salient than its color, as witnessed by the choice of adjectives). Other objects did not come in contrasting pairs, but consultants occasionally referred to their color, size, or shape: white string, round key (for key-chain), big fish or white fish, small car (not a contrastive quality since both toy cars contrasted by their color, but were of the same size and shape).

In our data, adjectives modifying nouns referring to objects that came in contrasting pairs are found either pre- or post-nominally. But in many cases, as in (21) below, it is plainly apparent that pre-nominal adjectives are meant to restrict the reference to only one member of the pair, as opposed to the other.

- (21) [17/10–41; B2]  
 qarits xian ma  
 scissors first FP  
 ranhou: bhgay haya  
 after white car  
 zai lai  
 again come  
 m-banah haya  
 AF-red car  
 ‘First the scissors! Then... the white car. And then... The red car.’

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23. Note that in Romance languages, the restrictive interpretation has been claimed to be linked to post-head adjectives, while pre-head adjectives are non-restrictive (Alexiadou 2001). Martin (2014) makes a somewhat different generalization for French, building on the fact that some adjectives prefer the left position while others prefer the right position. The preferred position is always semantically less marked (allowing restrictive as well as descriptive readings) than the other one. We find that a similar generalization applies to Truku Seediq, where the unmarked position, to the right of the modified noun, allows more readings than the marked pre-nominal position, as expounded in this part.

In the following exchange, the pre-nominal adjective is used to ensure that the addressee selects the right referent between the two owl figurines:

- (22) [17/5–23; B2]  
 hidani rawa pangbian ey puurung  
 then basket beside FILL owl  
 paru puurung shi ma  
 big owl be INT  
 ‘Then, beside the basket, uh, the owl. The big owl, isn’t it?’

Speakers may use both orders in the same utterance when semantically and pragmatically appropriate. For instance, in the following excerpt, while there is only one piece of (white) string (non-contrastive ‘white’ is post-nominal), the black bowl contrasts with a bowl in a different color present in the setting (contrastive ‘black’ is pre-nominal).

- (23) [19/8–23; A7]  
 gasil  
 string  
 gasil bhgay  
 string white  
 p-sa-i ska m-qalux pratu  
 CAUS-go-IMP middle AF-black bowl  
 ‘The string. The white string. Put (it) in the middle of the black bowl.’

Since the post-nominal adjective ‘white’ is not used to differentiate the white string from a string in a different color, we consider it to be merely descriptive. The pre-nominal adjective ‘black’ however has a restrictive value, meant to refer only to the bowl having this quality (as opposed to the adjacent red bowl). Similarly, when the adjective *bilaq* ‘small’ modifies *haya* ‘car’, it is never contrastive since both toy cars are small. Predictably, *bilaq* always follows the noun ‘car’, but never precedes it in our corpus.

Interestingly, when speakers omit the noun, the relative order of adjectives still reflects the restrictive vs. descriptive distinction. In (24) below, the speaker refers to one of two small toy cars (thus ‘small’ is merely descriptive) that come in two colors (thus ‘white’, placed in front, is restrictive).

(24) [19/8–27; A7]

kamut

truck

'haya' sun kari nihong ni

car say talk Japan FP

bhgay bilaq

white small

p-sa-i ska m-qalux pratu

CAUS-go-IMP middle AF-black bowl

'The truck. The "car", as they say in Japanese, huh. The white small (car). Put (it) in the middle of the black bowl.'

Let us state that, among the 61 adjectives found pre-nominally, 51 are clearly used in a restrictive way, in order to differentiate an object in a pair of contrasting objects. The 10 remaining cases, in which a pre-nominal adjective is used to modify an object that is unique in the set, are less clear-cut though.<sup>24</sup> In some instances, this occurs after the object has just been mentioned a first time, with a bare N. Thus, the presence of the modifier to the left of the repeated noun could be seen as a way of directing the attention of the addressee more accurately, thus adding more specification power to the DP:

(25) [18/5–42; B5]

gasil

string

bhgay gasil

white string

'The string. The white string.'

The claim we make about the restrictive vs. descriptive semantic value of adjectives in Truku Seediq as related to their position parallels the claim made by Tang about relative clauses in Formosan languages. According to her, and following A. Liu's<sup>25</sup> observation, Formosan non-restrictive relative clauses appear to the right

24. We do not attempt to give exact numbers regarding the restrictive vs. descriptive semantic contrast, because a fair amount of cases is ambiguous. It is not always easy to ascertain the intention of the speaker, since each speaker may view the situation in a personal way. For instance, some speakers name the owl figurines as *ruru* 'ducks', so that they are able to make a contrast between the small/red and the big/green 'duck', while for the majority of other speakers, *ruru* refers to the unique yellow duck in the set. In the last case, only *bilaq* 'small' is used to modify 'duck', presumably in a non-contrastive way. We would need to undertake a more detailed content analysis in order to better capture the function of adjectives.

25. Liu, Adlay Kun-long. 2004. *On relativization in Squliq Atayal*. Hsinchu: National Tsing Hua University. (M.A. Thesis.) Cited by Tang (2008).

of nouns in unmarked cases, while the position occupied by restrictive relative clauses is either to the left or to the right of the modified noun (Tang 2008: 956). But whereas Tang (2008: 956–960) retraces the variable position of relative clauses to a diachronic development available to all Formosan languages, and exemplifies it in several contemporary Formosan languages, variation in adjective position does not seem to be as widespread.

The existence of two syntactic positions available to restrictive vs. descriptive adjectives has also been evidenced in Mandarin Chinese (Paul 2005). In Chinese, modifying adjectives always occur to the left of the noun. However, while adjectives directly modifying the noun are merely descriptive, adjectives followed by the modifying particle 的 *de* are restrictive. In the following excerpt, the speaker makes a clear parallel between a pre-nominal adjective in Truku Seediq (restrictive) and an Adj-*de* structure in Mandarin Chinese (restrictive as well):

- (26) [17/10–53; B2]  
 m-banah pratu  
 AF-red bowl  
 hong de wan  
 red MOD bowl  
 ‘The red bowl. The red bowl.’

The question of the syntactic structure of the DP and of possible parallels between Truku Seediq and Mandarin Chinese is treated in § 4.

### 3.3 Proposal (2): Post-nominal adjectives are either descriptive or restrictive

Given that pre-nominal adjectives seem to be restrictive, we may wonder if all post-nominal adjectives are merely descriptive. This would give rise to a neat description of the link between semantics and syntax. However, this may not be the case, since we hypothesize that the possibility for adjectives to be pre-posed in Truku Seediq is an ongoing language change (see § 5). Thus, it could be that post-nominal adjectives still have both values. Indeed, this would parallel both Tang’s (2008) and Martin’s (2014) generalizations. Tang (2008: 958) recalls that in Wulai Squiliq Atayal, restrictive relative clauses may precede or follow the noun, as opposed to descriptive ones which only follow it. Regarding French non-neutral adjectives (be they “right-adjectives” or “left-adjectives”, meaning their unmarked position is either to the right or to the left of the noun), Martin (2014: 37) states that, where in their canonical/unmarked position, they may have both restrictive and descriptive functions, while in their marked position, they have only one of those two values.

As a matter of fact, post-nominal adjectives in our data appear to be roughly equally distributed between restrictive and non-restrictive readings.

The following example seems to exemplify clearly the merely descriptive function of post-nominal adjectives, as opposed to the restrictive function of pre-nominal adjectives. In (27), *bilag* ‘small’ is not a contrastive quality for toy cars in the task setting, as opposed to *bhagay* ‘white’, since there is a matching red toy car:

- (27) = (4) [17/2–30; A3]  
 ni bhagay haya bilag ga  
 and white car small DEM.D  
 ‘And that small white car.’

Thus, in (27) above, the restrictive adjective is pre-nominal while the descriptive one is post-nominal. However, this restrictive vs. descriptive positional opposition does not hold for all occurrences in the data. In the following example, although ‘small’ can be considered as descriptive, ‘red’ is rather contrastive (since there is a matching white toy car, referred to earlier on in the same dialogue, see (27)). Both adjectives are post-nominal.

- (28) [17/2–48; A3]  
 bukuy haqit nii do  
 behind ?? DEM.P TOP  
 haya bilag da  
 car small AS.PFV  
 haya m-banah  
 car AF-red  
 ‘Behind the ??, (it’s) the small car. The red car.’

In the following exchange, both adjectives clearly hold a restrictive function, despite their post-nominal position:

- (29) [19/2–23; B9 & 19/2–24; A6]  
 B9. puurung  
 owl  
 niq-an gasil nini  
 have-LF string DEM.P  
 ‘The owl. This (one that) has a string.’  
 A6. puurung  
 owl  
 paru? bilag?  
 big small  
 ‘The big owl? The small (one)?’

Thus, it seems clear that, although the semantic function of pre-nominal adjectives is restricted to a contrastive/restrictive value, adjectives in post-nominal position may either be descriptive or restrictive.

Next part will discuss the syntactic relationship between the modified noun and the modifying adjective in both syntactic positions.

#### 4. The syntax of the semantics of adjectives in Truku Seediq

In languages where two positions are available for modifying adjectives, it has been proposed that both positions do not have the same syntactic status, and have a different syntactic relation to the noun. We shall take proposals by Bouchard (1998) for French and by Paul (2005) for Mandarin Chinese as examples. The choice of Mandarin Chinese furthermore allows us to compare our data in Truku Seediq and in Mandarin Chinese, since much code-switching occurs in our recorded interactions (see why this is the case in § 1.1).

In French, Bouchard (1998: 1) proposes that pre-nominal adjectives that are semantically descriptive are more closely related to the noun than are restrictive post-nominal adjectives. In his terms, “[...] whereas a post-N adjective combines with the head N as a fully closed-off functor category, a pre-N adjective modifies a component internal to N”. To cite again the celebrated example, in *un homme grand* ‘a tall man’, *grand* ‘tall’ modifies the noun *homme* ‘man’ as a whole. Thus, we get an idea of the physical size of the man. On the other hand, in *un grand homme*, the pre-N adjective *grand* ‘tall’ modifies only some properties of the noun *homme*, in this case his moral virtues or psychological character, so that we get the meaning of ‘a great/celebrated/honorable man’. Thus, while pre-N adjectives are “sister heads” of N in Bouchard’s terms (1998: 2) and semantically modify a component of N, post-N adjectives in French modify N as a whole, the difference in syntactic proximity yielding a difference in compositional meaning. If we follow Martin’s (2014: 37) generalization about French, we may also remark that, as a left-adjective, *grand* ‘tall’ in post-N position is restrictive. Thus, restrictive adjectives may be said to be syntactically further from N than are descriptive ones, their scope bearing on N as a whole.

Let us now turn to Mandarin Chinese. In Mandarin Chinese, although both positions of the adjective are pre-nominal, we may describe their syntactic relationship to N in terms similar to French. Descriptive adjectives mark a “defining property”, they are heads, and are syntactically close to the noun (Paul 2005: 758). Restrictive or “attributive” adjectives on the other hand, marking “accessory properties” according to Paul (2005), are maximal projections, they are separated from the noun by the modifying particle *de* 的 and pertain to a phrase higher than NP (often labeled as Classifier Phrase, see Cheng & Sybesma 2014).

Thus, building on concordant generalizations from unrelated languages, namely Romance Languages and Mandarin Chinese, we could hypothesize that pre-nominal adjectives in Truku Seediq, being semantically restrictive, modify N

as a whole, and thus stand further from the noun than descriptive adjectives do. Furthermore, that they are maximal projections (AdjP) rather than heads (Adj).

As a matter of fact, we find a few cues indicating this could be the case.

First of all, pre-nominal adjectives can be modified by adverbs. This pleads for an AdjP in pre-nominal position.

- (30) [17/1–79; A1]  
 Angal ka paru bi puurung=su  
 take PRED big very owl=2SG.POSS  
 ‘Take your very big owl.’

As mentioned in § 3.1.2, numerals are consistently pre-nominal in Truku Seediq. With post-nominal adjectives, the only possible order is Num N Adj,<sup>26</sup> where N is never separated from Adj by the numeral. With pre-nominal adjectives in elicited (thus supposedly normative) data, the attested order is Num Adj N.<sup>27</sup> However, in spontaneous data, the numeral ‘one’ may intervene between the pre-nominal adjective and the noun.

As we noted earlier (see § 3.1.2), such a construction is also marginally attested by Chang (2000: 66) in Paran Seediq, whereas numerals may never occur after post-N adjectives.

- (31) = (14) [19/6–71; B8]  
 Ga do bilaq kingal bi qita puurung da ga  
 DEM.D TOP small one very so\_to\_say owl AS.PFV DEM.D  
 ‘That one, (it is) one really small, so to say, owl.’

In this sentence, the numeral is to be analyzed as part of the Adjective phrase, being followed by the adverbial modifying the adjective. Thus, there is evidence that pre-N adjectives in Truku Seediq stand in an adjectival phrase rather than being heads directly modifying the noun.

Let us now turn to post-N adjectives. As claimed in § 3.3, they may be either semantically restrictive, like pre-nominal adjectives, or semantically descriptive.

26. As in the following utterance

- (vii) [17/4–24; A3]  
 kingal puurung bilaq truma hini do  
 one owl small under here FP  
 ‘One small owl under there.’

27. As in the following elicited data

- (viii) [A1 & A7 elicitation]  
 dha paru bluhing gaga  
 two big sieve DEM.D  
 ‘Those two big sieves.’

These two different semantic functions could well correspond to two distinct syntactic statuses and positions. First of all, restrictive post-nominal adjectives could resemble restrictive pre-nominal adjectives in that they would head their own maximal projection, modifying N as a whole. We may have an illustration of this in the next example, uttered by B15 when pointedly directing the attention of his addressee to the small duck in the setting:

- (32) [22/2–17; B15]  
 ruru bilaq bi Tai  
 duck small very Tai.PROPR  
 ‘A/the very small duck, Tai!’

In (32) above, modifying the noun is not just the adjective, but an adjectival phrase constituted of an adjective and its modifying adverb. As for descriptive post-nominal adjectives, they may stand closer to the noun, as witnessed by the fact that, as demonstrated in § 2.1, the presence of a possessive clitic to the right of the noun is a sufficient syntactic constraint for the adjective not to occur post-nominally. Going as far as the descriptions for French and Mandarin Chinese would lead us to advocate a kind of incorporation of the bare descriptive adjective into the Noun Phrase, the adjective being as close to the noun as the possessive clitic is, the presence of the one barring the presence of the other.

This would lend some explanatory power to the hypothesis that restrictive adjectives only are able to stand pre-nominally in Truku Seediq. Indeed, if descriptive adjectives are incorporated into the NP, they may hardly move to a higher position. Restrictive adjectives on the other hand, heading their own maximal projection, would be able to switch from the post-N position to the pre-N position, along with the whole Adjectival Phrase. This very tentative sketch would of course need to be corroborated by more elicited data.

##### 5. Contact, variation and change: Pre-nominal adjectives as a syntactic and semantic innovation in Truku Seediq

When confronted with variation such as described in this paper, we face a number of questions. The more common question is: does this variation result from language contact leading to change? Given the fact that other dialects of Seediq (such as Paran Seediq, as described by Chang 2000 and Ochiai 2015) only exhibit the post-nominal position for adjectives, as does the closely related Atayal language (Huang 2000), we are entitled to think that the availability of a pre-nominal position for adjectives in Truku Seediq is indeed an innovation found only in that dialect. It may even be characterized as a recent innovation, since our eldest consultant rejects the Adj-N order in elicited data.

Once it is acknowledged that language change is at stake, a number of sub-questions arise:

- a. Which of the two variants is the more conservative/canonical one? Based on comparison with closely related languages, it seems that we may consider the post-nominal position of adjectives as the canonical position, whereas the pre-nominal position would be an innovation of Truku Seediq. Apart from comparative data, we may also rely on our semantic description of the restrictive/descriptive readings of adjectives to formulate a similar hypothesis. If there was a single position for adjectives in Truku Seediq a few decades ago, it had to be compatible with both descriptive and restrictive readings of adjectives. Indeed, in our current data, both readings are still available in post-nominal position, indicating that linguistic change may still be ongoing.
- b. What are the triggering factors for such a language change? There are two possible answers. The first is based on language-internal dynamics. Somehow, speakers of the language realized that more expressive power could be conferred to adjectives by placing them in a pre-nominal position. In this respect, the fact that pre-nominal adjectives have a contrastive, restrictive reading is very meaningful. As sketched in § 4, there may be a syntactic asymmetry between descriptive and restrictive adjectives that would enable only the latter to undergo this positional change. Unfortunately, this is the only positive evidence to substantiate such a language-internally motivated process. However, this language-internal motivation is compatible with a totally different kind of motivation, stemming from language contact. As a matter of fact, both motivations could act in a complementary manner.

In his 1977 dictionary, Pecoraro, who lived among the Truku people from 1955 to 1971, notes that variation is pervasive in the Truku language, as a consequence of contact with Japanese and Chinese. Pecoraro writes:

It is, at least for the greater part, because of the bilingualism that has been imposed for almost a century, and because of the vertiginous social transformation affecting next to two generations, that language is evolving profoundly and very rapidly. This evolution is all the more evident than the speaker is – or has been – in greater contact with other languages, in schools, factories, administration, military service [...].  
(1977: 11–12, our translation)

The questionnaires filled in by our consultants showed that the A generation speakers were the first to come into contact with Mandarin Chinese,<sup>28</sup> although the eldest A speakers claim they have learnt the Chinese language in an informal way, without

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<sup>28</sup> While their parents were in contact with the Japanese language, very few of them had sustained access to schooling.

the help of (sustained) schooling. The B generation speakers however have all learned Mandarin Chinese through schooling and the media, and used it in their interactions with their siblings. As noted earlier in this paper, Mandarin Chinese has only pre-nominal adjectives, be they used in a restrictive or in a descriptive manner. Thus, increased contact with the Chinese language may have boosted the introduction of a pre-nominal position for adjectives in Truku Seediq.

If we group the figures regarding N/Adj production in Table 1 by age class, and furthermore, add data on the position of adjectives both in Mandarin Chinese and in mixed discourse utterances from our data set, we obtain the tendencies outlined in Table 4 below.

**Table 4.** N/Adj order in Truku, Mandarin Chinese and mixed DPs, by consultants' age class

Speaker	Truku DPs		Mandarin Chinese DPs		Mixed DPs*		
	Adj-N	N-Adj	Adj-N	N-Adj	Adj[cmn]-N[trv]	N[trv]-Adj[cmn]	N[trv]-Adj[trv]-Adj[cmn]
A speakers	16	81	7	2	2	–	1
B speakers	45	63	14	–	4	2	–
C speakers	–	–	–	–	4	–	–
<b>Total</b>	<b>61</b>	<b>154</b>	<b>21</b>	<b>2</b>	<b>10</b>	<b>2</b>	<b>1</b>

\* For mixed DPs, we use ISO 639-2 codes to indicate which of the two languages is used: 'trv' means Truku Seediq; 'cmn' means Mandarin Chinese.

Through Table 4, we can detect multiple tendencies. First of all, in Truku Seediq, elderly speakers tend to use the N-Adj order more, while the middle-aged speakers tend to vary more between the two orders. Second, in Mandarin Chinese, while elderly speakers may erroneously produce the N-Adj order, group B consultants consistently use the canonical Adj-N order. Third, mixed-language DPs seem to show a preference for the Adj-N order prevalent in Mandarin Chinese, but data are scarce. Younger speakers never produce both a Truku Seediq adjective and noun in the same DP. Although their uses in mixed DPs could be seen as reflecting the marked Adj-N order in Truku Seediq, pre-nominal adjectives being used in a restrictive way, we rather think that it reflects the syntax of Mandarin Chinese, since the matrix sentences are all in Mandarin Chinese.<sup>29</sup>

Still, the preceding table shows that post-nominal adjectives are much more frequent than pre-nominal ones. Table 1 also showed that seven speakers among the A and B consultants never used the pre-nominal adjective configuration, while

29. Here, we may follow Myers-Scotton (1993) who states that embedded language islands surrounded by matrix language propositions usually follow the syntax of the matrix language.

only one B speaker never used post-nominal adjectives (but this is marginal, since B13 uses one adjective only).

Thus, we could argue that there is a growing tendency to use pre-nominal adjectives for younger competent speakers of Truku Seediq. Unfortunately, language attrition in the C consultants will not allow us to see if this change goes all the way down to a unique pre-nominal position for restrictive adjectives in Truku Seediq.

## 6. Conclusion

In this paper, we started from observations in the literature that there were two possible positions for modifying adjectives in Truku Seediq. As none of the previous authors had provided any semantic or syntactic generalization to explain this fact, or even to describe it adequately, we endeavored to explore this positional variation using a data set that we collected in 2014 in Tongmen Village.

This led us to propose generalizations at several levels: syntactic, semantic, and sociolinguistic.

At the syntactic level, we evidenced a single constraint forcing the pre-nominal position of adjectives, namely the presence of a possessive clitic pronoun to the right of the noun. This possessive clitic is the only post-N modifier acting as a constraint on adjective placement. We also claimed that there was a difference in syntactic structure between phrases with Adj-N and N-Adj orders, and also between restrictive and descriptive adjectives sharing a post-nominal position. However, the arguments for this syntactic difference need to be further strengthened, using more elicited data.

At the semantic level, we evidenced that pre-nominal adjectives had a fairly consistent restrictive semantic reading (with the possible exception of adjectives forced to be pre-nominal because of the presence of a post-nominal possessive pronoun). On the other hand, the post-nominal position yields indifferently descriptive or restrictive adjectives. We showed that such a generalization was very similar to what has been evidenced for relative clauses in Formosan languages (Tang 2008) and for adjectives in both Romance languages (Alexiadou 2001; Martin 2014) and Mandarin Chinese (Paul 2005).

Finally, at the sociolinguistic level, we reflected on several possible explanations for what can be described as a linguistic change, arguing that an explanation based on language-internal factors was in fact compatible with an explanation in terms of increased contact with Mandarin Chinese. This leaves open the question why such a change should happen in Truku Seediq, and not in closely related languages, since all speakers of Formosan languages have been subjected to language contact first with Japanese, then with Mandarin Chinese for several decades. Although we

know, thanks to Thomason & Kaufman (1992), that in language contact situations, not all possible changes do occur, explaining what triggers a certain change to occur remains a daunting problem.

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## Abbreviations

2SG	2nd person singular pronoun	LF	Locative focus voice
3SG	3rd person singular pronoun	MOD	Modifying particle
AF	Actor or experiencer focus voice	NEG	Negation
AS.PFV	Perfective aspect particle	NEG.INT	Interrogative negation
CAUS	Causative	ORD	Ordinal numeral
CL	Classifier	PFV	Perfective aspect affix
DEM.D	Distal demonstrative	POSS	Possessive clitic
DEM.P	Proximal demonstrative	PRED	Predicate delimitator
FILL	Filler	PROP	Proper name
FP	Final particle	RED	Reduplication
IMP	Imperative	TOP	Topic delimitator
INT	Interrogative particle		

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### *Author's address*

Claire Saillard  
 UFR Linguistique  
 Université de Paris  
 Case 7003-5 rue Thomas Mann  
 75205 Paris Cedex 13  
 France  
 claire.saillard@linguist.univ-paris-diderot.fr

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